

WHAT IS CLAIMED IS:

1. An imaging device comprising:

a photoelectric conversion area including a plurality of photoelectric converters;

a controller for controlling a first mode for continuously acquiring image data by multiple object imaging operations including an imaging operation with multiple different storage times and a second mode for continuously acquiring correction data acquired in the multiple different storage times with the photoelectric conversion area shielded, after the first mode; and

an image processor for correcting the image data by using the correction data.

2. An imaging device according to Claim 1, wherein:

the photoelectric conversion area includes an optical black area covered with a shield area for shielding light; and

the image processor corrects the image data on the basis of optical black data from the optical black area every time the plurality of image data is acquired in the first mode and then corrects the image data corrected with the optical black data by using the correction data.

3. An imaging device according to Claim 1, wherein:
the plurality of photoelectric converters are arranged in two dimensions and are read out sequentially on a line-by-line basis; and

the optical black area is arranged in the area of plural lines that are read out first.

4. An imaging device according to Claim 1, wherein, in the second mode, the controller continuously acquires the correction data in the same order as that of the imaging operation with the multiple different storage times in the first mode and in the order of the storage time.

5. An imaging device according to Claim 1, wherein, in the second mode, the controller acquires the correction data in ascending order in storage time.

6. An imaging device according to Claim 1, wherein:
the controller further comprises a third mode for continuously acquiring image data by multiple object-imaging operations with the same storage time and a fourth mode for acquiring correction data acquired with the photoelectric conversion area shielded, after the completion of the first mode; and

the image processor corrects the image data obtained in

the third mode by using the common correction data obtained in the fourth mode.